



Volunteer Lake Assessment Program Individual Lake Reports

E. WASHINGTON DAM POND, WASHINGTON, NH

MORPHOMETRIC DATA

Watershed Area (Ac.):		Max. Depth (m):		Flushing Rate (yr ⁻¹)		Year	Trophic class	KNOWN EXOTIC SPECIES
Surface Area (Ac.):	26	Mean Depth (m):		P Retention Coef:		2010	MESOTROPHIC	
Shore Length (m):		Volume (m ³):		Elevation (ft):				

The Waterbody Report Card tables are generated from the 2012 305(b) report on the status of N.H. waters, and are based on data collected from 2001-2011.

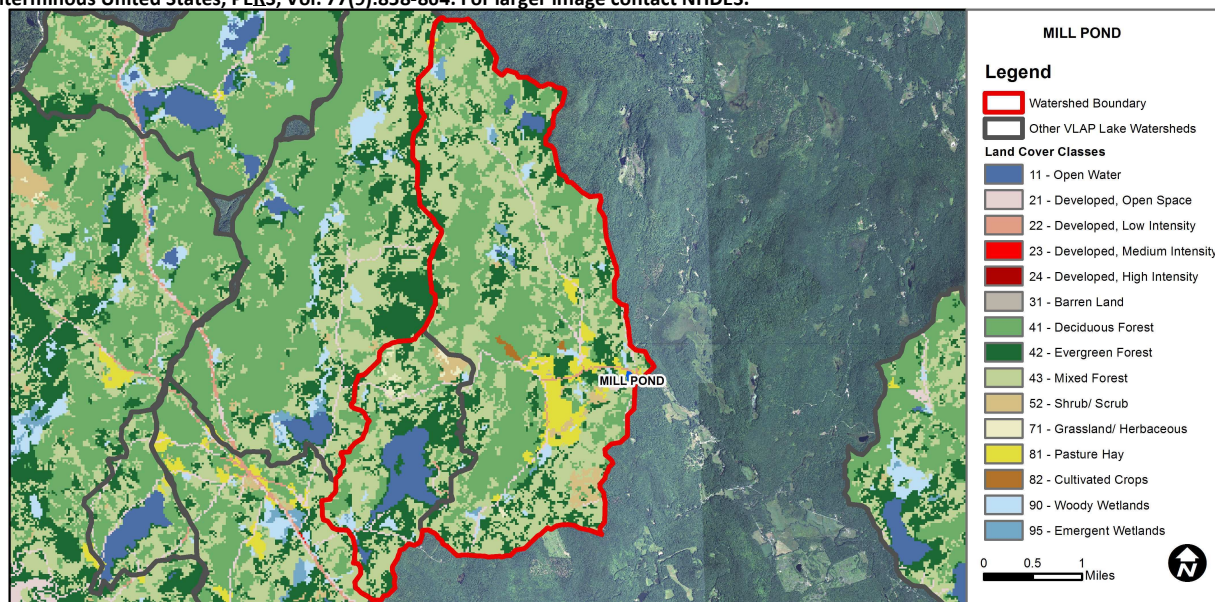
Designated Use	Parameter	Category	Comments
Aquatic Life	Phosphorus (Total)	No Threshold	No threshold established.
	pH	Slightly Bad	>10% of samples exceed criteria by a small margin (minimum of 2 exceedances).
	D.O. (mg/L)	Encouraging	< 10 samples and no exceedance of criteria. More data needed.
	D.O. (% sat)	Encouraging	< 10 samples and no exceedance of criteria. More data needed.
	Chlorophyll-a	No Threshold	No threshold established.
Primary Contact Recreation	E. coli	No Data	No Data for this parameter.
	Chlorophyll-a	Slightly Bad	>10% of samples exceed criteria by a small margin (minimum of 2 exceedances).

BEACH PRIMARY CONTACT ASSESSMENT STATUS

BEARDS BROOK - MILL POND TOWN BEACH	E. coli	Bad	>=1 exceedance(s) of geometric mean criterion and/or >=2 exceedances of single sample criterion, with 1 or more >2X criteria.
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WATERSHED LAND USE SUMMARY

Fry, J., Xian, G., Jin, S., Dewitz, J., Homer, C., Yang, L., Barnes, C., Herold, N., and Wickham, J., 2011. Completion of the 2006 National Land Cover Database for the Conterminous United States, PERS, Vol. 77(9):858-864. For larger image contact NHDES.



Land Cover Category	% Cover	Land Cover Category	% Cover	Land Cover Category	% Cover
Open Water	3.48	Barren Land	0.01	Grassland/Herbaceous	0.47
Developed-Open Space	1.99	Deciduous Forest	28.39	Pasture Hay	3.49
Developed-Low Intensity	0.37	Evergreen Forest	18.32	Cultivated Crops	0.25
Developed-Medium Intensity	0	Mixed Forest	38.9	Woody Wetlands	1.89
Developed-High Intensity	0	Shrub-Scrub	1.89	Emergent Wetlands	0.53



VOLUNTEER LAKE ASSESSMENT PROGRAM INDIVIDUAL LAKE REPORTS

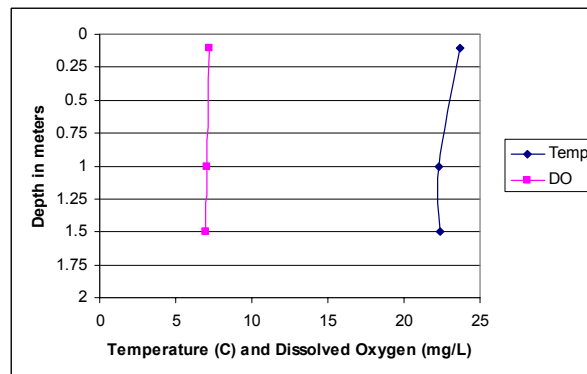
MILL POND, EAST WASHINGTON, NH

2012 DATA SUMMARY

OBSERVATIONS AND RECOMMENDATIONS (Refer to Table 1 and Historical Deep Spot Data Graphic)

- ♣ **CHLOROPHYLL-A:** Chlorophyll levels were greater than 30 ug/L in August indicating an algal bloom was occurring. Chlorophyll levels have been elevated in the pond since 2010.
- ♣ **CONDUCTIVITY/CHLORIDE:** Conductivity was elevated in Island Pond Inlet in August and September likely due to low flow conditions.
- ♣ **E. COLI:** E. coli levels were slightly elevated in the tributaries in August, however well below the state standard for surface waters.
- ♣ **TOTAL PHOSPHORUS:** Epilimnetic (upper water layer) phosphorus levels were elevated in August and September likely due to the algal bloom conditions. The 2012 average epilimnetic phosphorus was much greater than historical levels.
- ♣ **TRANSPARENCY:** Transparency was generally good and the Secchi disk was visible on the pond bottom in June and September.
- ♣ **TURBIDITY:** Epilimnetic and Outlet turbidities were elevated in August due to the algal bloom.
- ♣ **pH:** pH levels were slightly lower than desirable in June.
- ♣ **RECOMMENDED ACTIONS:** Maintain monitoring program to help identify water quality trends. Continue implementing best management practices to control non-point source pollution in the watershed. Keep up the great work!

Dissolved Oxygen & Temperature Profile



Station Name	Table 1. 2012 Average Water Quality Data for Mill Pond							
	Alk.	Chlor-a	Cond.	E. Coli	Total P	Trans.	Turb.	pH
	mg/l	ug/l	uS/cm	#/100ml	ug/l	m	ntu	
						NVS		
Deep Epilimnion	8.2	11.58	57.6		37	1.47	2.77	6.56
Island Pond Inlet			87.4	55	22		1.33	6.84
Outlet			59.5		31		2.17	6.82
Woodward Brook			34.8	50	13		1.40	6.63

NH Median Values: Median values for specific parameters generated from historic lake monitoring data.

Alkalinity: 4.9 mg/L
Chlorophyll-a: 4.58 mg/m³
Conductivity: 40.0 uS/cm
Chloride: 4 mg/L
Total Phosphorus: 12 ug/L
Transparency: 3.2 m
pH: 6.6

NH Water Quality Standards: Numeric criteria for specific parameters. Results exceeding criteria are considered a water quality violation.

Chloride: < 230 mg/L (chronic)
E. coli: > 88 cts/100 mL – public beach
E. coli: > 406 cts/100 mL – surface waters
Turbidity: > 10 NTU above natural level
pH: 6.5-8.0 (unless naturally occurring)

HISTORICAL WATER QUALITY TREND ANALYSIS

Parameter	Trend	Explanation
Chlorophyll-a	N/A	More data necessary to establish trend.
Transparency	N/A	More data necessary to establish trend.
Phosphorus (epilimnion)	N/A	More data necessary to establish trend.

This report was generated by the NH DES Volunteer Lake Assessment Program (VLAP). For more information contact:
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Historical Deep Spot Chlorophyll-a, Epilimnetic Total Phosphorus & Transparency Data

